UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL ASSESSMENT

January 31, 2012

Susan Childs
Shell Exploration & Production
3601 C Street, Suite 1000
Anchorage, Alaska 99503

Re: Discoverer PM2.5 Speciation Monitoring Program QAPP Addendum – v1.0, Jan 2012

Dear Ms. Childs,

EPA Region 10 has completed an initial review the above cited QAPP and found it to be well developed and appropriately detailed for most of the required topics. Attached to this letter is the aggregate of regional comments provided for your review and consideration. Based on the scope of our review findings, Region 10 is presently not prepared to approve this version of the QAPP. We look forward to an opportunity to review an updated version of the QAPP in the near future, and it is our expectation that we would be able to approve the QAPP at that time if our comments are adequately addressed.

Please feel free to have your staff or contract representatives contact me at any time if you wish to discuss these review comments in further detail. I can be reached at (206) 553-0521 and hall.christopher@epa.gov.

Sincerely,

Chris Hall
Environmental Characterization Unit

Cc: Pauline Ruddy, Shell E&P
Brad Broker, SLR International
Doug Hardesty, EPA/IOO
Dave Bray, EPA/OAWT
Herman Wong, EPA/OEA
Krishna Viswanathan, EPA/OAWT
Mahbubul Islam, EPA/OEA
Julie Vergeront, EPA/ORC
Alex Fidis, EPA/ORC
Juliane Matthews, EPA/ORC

EPA Region 10 Comments
Discoverer PM2.5 Speciation Monitoring Program QAPP Addendum (v1.0, Jan, 2012)
January 30, 2012

1) Section A6, pg 7: It is strongly recommended that the EPA PM2.5 Speciation program QA requirements be adhered to as closely as possible. EPA is aware that neither the Dec 2000 STN QAPP nor the draft 2011 CSN QAPP provide specific QC limits for laboratory equipment, thus we agreed that the IMPROVE based QC limits provided in table A-8 should be used.

2) Section A6.1.1, pg 8: Table A-3 notes that sulfate and nitrate anions will be analyzed via IC. To keep in line with the EPA Speciation program, ammonium, potassium, and sodium cations should be determined as well. Note that a review of NIOSH method 7903 does not state whether these three cations can be characterized by this method. Please verify.

3) Section A7, page 15: How do the IMPROVE based acceptance criteria in Table A-8 compare to that of the analytical lab(s) to be used by SLR?

4) Section A7, page 15: Please add a citation for footnote #1 in Table A-8.

5) Section A8, pg 16: It is not specified what form the "training on the proper set-up, calibration and operation of the samplers by the instrument manufacturer" will take. Please clarify this training plan within the QAPP addendum.

6) Section B1, pg 17: To be able to adequately characterize the particulate pollutant plume and to be able to model secondary PM2.5 formation Region 10 is requesting that SOI commit to a 1/3 day sampling for the first year of operation in order to build a robust data set for future characterization and modeling purposes.

7) Section B1, page 18: Please provide all appropriate laboratory SOPs from Chester LabNet (Note that a copy of NIOSH method 7903 is not equivalent to the laboratory SOP). As well it is unclear which laboratory will be conducting the TOR-TOT carbon analysis. The Chester LabNet web site does not show that they have this capability and it is not specifically mentioned in the SOI Speciation QAPP.

8) Section B3, pg 27: As specified in the EPA STN & CSN QAPPs the post-sampled filter storage requirement should state between 0° and 4° C rather than < 4° C. As well R10 requests that SOI commit to sending exposed cassettes to the analytical lab as soon as practicable to reduce the chance that QAPP specified holding times are not met. Note that the 30 day window for analysis only applies to gravimetric analysis, i.e., there is no specified holding time limit for chemical analysis as long as the sample media are stored properly.

9) Section B4.1, page 29: Please add a table in this section which provides a summary of the laboratory analysis procedures to be used. Information provided in this table should include sample media, extraction/analytical method including method number and method detection limits.

10) Section B5, page 30: It is stated that field blanks will be used to assess total measurement system contamination. What statistic and statistical equations will be used to derive this contamination value? Is this the coefficient of variation (CV) statistic used in the STN/CSN program used to determine total measurement error? (see section 7.3 of the STN or CSN QAPP)

11) Section B6.2, pg 32: Please clarify in further detail what specific duties the station site operator, the station site technician, and any other relevant personnel will be for the speciation monitoring program.

12) Sec B10.2, pg 36: In the second paragraph on page 36 it states that "*If documentation is not sufficiently defensible, the affected data will be invalidated*". Who is responsible and what criteria will be used to determine if documentation is not sufficiently defensible?

13) Section C1.1, pg 37: Region 10 requests that quarterly performance audits be conducted by an independent 3rd party auditor rather than by an SLR staff member, in line with the current audit protocol being performed at Deadhorse, Wainwright, and other SLR operated Ambient Air Monitoring sites. Additionally we would request that these independent audits be performed on separate trips from when SLR is conducting QC calibrations.

14) Section C1.2, pg 37: In paragraph 2 it is stated that "Any questioned data will be brought to the attention of the Project Manager and Data Manger who will determine whether the data will be invalidated or accepted." What criteria will the Project and Data Manager use to invalidate data? In regard to comment #12 and this one, Region 10 requests that verification and validation procedures be provided with this QAPP.